



INTORQ

setting the standard

Electromagnetic brake systems

for lift applications

We set the standards

The INTORQ brand stands for reliable brake solutions of the highest standard. Whether in cranes, wind turbines or lift systems – INTORQ products are used in the most diverse of applications. Rely on us to create the right solution for your drive – individually and reliably.

With its broad scope of different versions, the modular range of INTORQ products is used in many motors and geared motors and has set standards worldwide. With the establishment of facilities in Shanghai and Atlanta, we have also consistently expanded our international presence. So wherever you are in the world, our network of sales and service staff is always close at hand to support you.



INTORQ at a glance

- Products: electromagnetic brakes and clutches
- Sales volume € 45 million per year
- 800,000 units per year
- 8,000 m² production area
- Development and production in Aerzen
- Companies in Shanghai and Atlanta
- 200 employees
- 63 sales partners in 49 countries
- Certified to DIN ISO 9001 and DIN ISO 14001



Spring-applied calliper brake

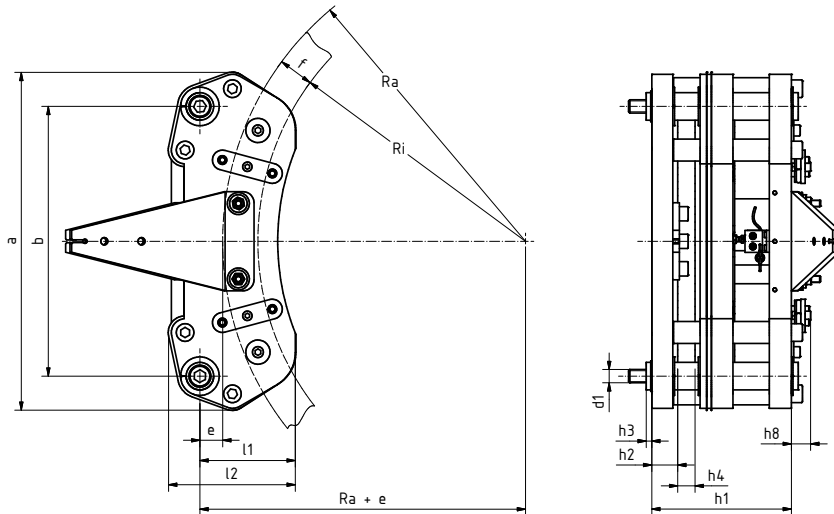
INTORQ BFK466



Direct drives for modern lift technology require brakes with high braking torques, fast response times and low levels of operating noise. The BFK466 with multi-pole technology satisfies all of these requirements and can also be adapted perfectly to the contour of the motor.

Properties

- Spring-applied brake designed as a calliper
- Redundant by multiple arrangement
- High level of braking torque and large working air gap
- Zero residual torque release and quiet switching
- Optimum contour matching to the motor design
- Cost optimized excitation due to bridge/half-wave rectifier (necessary)
- Fast switching times thanks to low brake inductance
- Release or wear monitoring with microswitch
- Type tested



Calculation of rated torque

$$M_K = F_R \times r_0$$

Friction radius

$$r_0 = 2x (Ra^3 - Ri^3) / 3x (Ra^2 - Ri^2)$$

$$Ri = Ra - f$$

Size	Friction force [N]	Power P ₂₀ Switch	Hold	a	b	d1	e	f	h1	h2	h3	h4	h8	l1	l2	Ra min.	Ra max.
12	1172	367 W	92 W	236	206	M10	26	30	101	15	5	15	19	83	98	250	500
22	2240	353 W	88 W	276	220	M10	20	40	108	19	5	15	22	88,6	105	150	425
35	3506	473 W	118 W	307	245	M12	20	32	128	25	5	15	19	87	116	225	375
80	8015	522 W	130,5 W	448	375	M16	25	60	150	29	15	25	-	127,9	165,2	300	600

■ Additional sizes and braking torques on request

■ P₂₀: Coil power at 20 °C in W

■ F_R: rated friction force in relation to a sliding speed of 2m/s

■ Dimensions in mm

■ More technical information can be found in the operating instructions

General information

INTORQ brakes are designed so that the stated rated torques are reliably attained after a short run-in operation.

Given the varying properties of the organic friction linings used and changing environmental conditions, there may however be deviations from the stated braking torques. Appropriate safety factors in the design must take this into account.

An increased breakaway torque may in particular be experienced in damp conditions and with changing temperatures after long downtimes.

The braking torque should be checked when using the brake on the customer's friction surfaces. If the brake is being used solely as a holding brake without any dynamic load, the friction lining must be reactivated regularly.



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